

Truecaller “Android Developer” Assignment

Dear candidate,

This is an assignment designed specifically to test how well you write code for a mobile app. While doing it, pretend that you are already an employee at Truecaller and that this is a real project. The output of this assignment will be the base for evaluation and will be followed by a technical interview, if qualified.

Write a simple Android app to meet the following specifications and emphasize your knowledge and fluency in mobile app development. Read this description text carefully and if there still is something unclear, contact us.

Please submit your answer packed in a folder with all the relevant source code files, and add some VERY BRIEF explanation about the structure. Also explain any assumptions or shortcuts that you have chosen to make and why.

It's fine to skip things, which should have been implemented in a real world project, to save some of your time, as long as you explain what you have skipped.

The app should show

- a single button to run the three requests SIMULTANEOUSLY
- one textview for each request to be updated as soon as the processing of corresponding request finishes

Functionality

The app should define and run 3 requests SIMULTANEOUSLY, each request is defined below;

1. Truecaller10thCharacterRequest:
 - Grab <http://www.truecaller.com/support> content from the web;
 - Process the web page content: Find the 10th character in the web page text and report it back to the UI code via a callback. This callback should bring an appropriate data structure.
2. TruecallerEvery10thCharacterRequest:
 - Grab <http://www.truecaller.com/support> content from the web;
 - Process the web page content: Find every 10th character (i.e: 10th, 20th, 30th, etc.) in the web page text and report it back to the UI code via a callback. This callback should bring an appropriate data structure.
3. TruecallerWordCounterRequest:
 - Grab <http://www.truecaller.com/support> content from the web;
 - Process the web page content: Split the text into words by using whitespace characters (i.e: space, linefeed, etc.) and write a simple algorithm to count the occurrence of every word (case insensitively) in the document and report it back to the UI code via a callback. The callback should bring an appropriate data structure of words and counts, so the UI code can ask how many times the word "truecaller" occurs.
 - You can disregard that there is html/javascript etc in the content. Just treat every "word" equally. For example: `<p> Truecaller Hello World </p>` should produce +1 for each of these: `"<p>"`, `"Truecaller"`, `"Hello"`, `"World"`, and `"</p>"`. No need to distinguish `"<p>"` than any other word.

In neither of the three requests does the HTML document need to be parsed in any way. Just treat it all like a plain text. There is also no need to make the app parametric, you can define <http://www.truecaller.com/support>, or 10 (as in 10th character) and such as constants. The reason for this assignment is to show how fluent the candidate is in writing robust, well structured, and understandable code in a mobile app. So implement your assignment accordingly.

Thanks in advance for your time and interest in Truecaller,

